# Declaration

Please refer to each product specific information data sheets for the detailed makeup of each version of the Gripple GS Seismic Brace.

## Product information

| | |
|---|---|
| Name | Gripple GS Seismic Braces |
| Product Codes | GS9, GS10, GS11, GS12, GS19, GS25 |
| Manufactured | 3 Corporate Avenue, Rowville, VIC 3178 |

## Relevant building code clauses

| | | |
|---|---|---|
| B 1.2 | B 1.3.3 | B 2.3.2 |
| B 1.3.1 | B 1.3.4 | F 2.3.1 |
| B 1.3.2 | B 2.3.1 | |

Catenany kits are not subject to warning or ban under section 26 of the Building Act 2004.

## Description

GS Seismic Brace - Non-Structural Seismic Bracing product. This product is designed and engineered to brace suspended non-structural equipment and components to minimise damage from earthquakes or seismic events.

## Scope of use

**B 1,1.3.1,1.32,1.3.3,1.3.4**
The Gripple GS Seismic Bracing system is designed to enhance the stability of non-structural components in buildings during seismic events. By securely bracing equipment and components, it reduces the likelihood of collapse or failure, thereby contributing to the overall structural resilience as outlined in B1 Structure. This is particularly crucial in earthquake-prone regions.

**B 2.3.1,2.3.2**
The Gripple GS Seismic Bracing with it's robust design and quality materials ensure that suspended non-structural elements remain functional and intact over time, even in the event of seismic activity. This aligns with the durability requirements of B2, ensuring that building elements can withstand environmental stresses without significant degradation.

**F 2.3.1**
The Gripple GS Seismic Bracing does not present a health hazard. There are no specific requirements in order to comply with Acceptable Solution F2/AS1.

## Limitations

**Load Capacity and Application Selection:**
The Gripple GS Seismic Bracing System has specified Ultimate Limit State (ULS) rating (as per AS/NZS1170.0) refer to specific product data sheets for individual ULS ratings. The actual load rating, however, is contingent on the selection of brackets and anchors. It is crucial that the system is used only within these load limits to ensure safety and effectiveness.

The brace methodology and specific application must be determined and approved by a Professional Engineer to ensure appropriateness for the intended use.

**Standard Compliance and Testing**
The Gripple GS Seismic Bracing system is tested according to specific standards, including ANSI/ ASHRAE Standard 171-2017 and AC156. Use should be confined to scenarios where compliance with these standards is deemed sufficient and appropriate. For applications requiring compliance with standards not covered by the Gripple GS Seismic Bracings current testing, alternative or additional bracing solutions may be necessary.





version 1.1

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## Limitations continue ...

**Custom Lengths and Configurations:**
While the standard cable length is 3 meters, custom lengths are available. The system must be applied in configurations that align with its design specifications and the requirements of the specific application.

**Installation Conditions:**
Proper installation is critical for the effectiveness of the Gripple GS Seismic Bracing system. The limitations include the need for a suitable structure to attach the brackets and the necessity of correct installation as per the provided guidelines.

Environmental factors, such as exposure to corrosive elements or extreme conditions, should be evaluated as they may affect the system's performance and longevity.

**Use in Seismic Events:**
The Gripple GS Seismic bracing is specifically designed for seismic bracing of non-structural components. Its use outside of these parameters, such as in non-seismic related applications, may not yield the intended benefits or safety assurances.

## Design requirement

It is important that the design, installation and application of the Gripple GS Seismic Bracing System are carried out by qualified professionals, adhering to the manufacturer's guidelines and relevant building codes.

## Installation

**Attach Loose Brackets to Non-Structural Component:**
Start by securing the loose brackets to the equipment or components that require bracing.

**Secure End Fixing to Structure:**
Install the anchor and attach the swaged bracket to the structural part of the building, such as beams or columns.

**Insert Wire Rope into Gripple Lockable Fastener:**
Thread one end of the wire rope through one channel of the Gripple Lockable Fastener.

**Thread Wire Rope Through Seismic Bracket:**
Feed the wire rope through the hole of the seismic bracket attached to the non-structural component.

**Back Through Gripple Fastener:**
Thread the wire rope back through the second channel in the Gripple Lockable Fastener and hand tighten to remove all slack.

**Lock Gripple Fastener:**
Finally, hand-tighten the locking bolts on the Gripple Fastener until secure, ensuring the system is taut and securely in place.

## Maintenance

The Gripple GS Seismic Bracing products require no regular maintenance.

If during any inspections any signs of wear, damage, or corrosion is noted these should be addressed promptly to maintain its efficacy.





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## Relevant building code clauses

| Building Code Clause | Description | Statement on how the building product is expected to contribute to compliance Seismic: |
|---|---|---|
| B 1.2 | Buildings, building elements and sitework shall withstand the combination of loads that they are likely to experience during construction or alteration and throughout their lives. | Gripple GS Seismic Braces is designed to enhance the stability of non-structural components in buildings during seismic events. By securely bracing equipment and components, it reduces the likelihood of collapse or failure, thereby contributing to the overall structural resilience as outlined in B1 Structure. This is particularly crucial in earthquake-prone regions. |
| B 1.3.1 | Buildings, building elements and sitework shall have a low probability of rupturing, becoming unstable, losing equilibrium, or collapsing during construction or alteration and throughout their lives. | |
| B 1.3.2 | Buildings, building elements and sitework shall have a low probability of causing loss of amenity through undue deformation, vibratory response, degradation, or other physical characteristics throughout their lives, or during construction or alteration when the building is in use. | |
| B 1.3.3 | "Account shall be taken of all physical conditions likely to affect the stability of buildings, building elements and sitework, including:<br>(a) self-weight,<br>(b) imposed gravity loads arising from use,<br>(c) temperature,<br>(f) earthquake,<br>(h) wind,<br>(i) fire,<br>(p) influence of equipment, services, non-structural elements and contents," | |
| B 1.3.4 | "Due allowance shall be made for:<br>(a) the consequences of failure,<br>(b) the intended use of the building,<br>(c) effects of uncertainties resulting from construction activities, or the sequence in which construction activities occur,<br>(d) variation in the properties of materials and the characteristics of the site, and<br>(e) accuracy limitations inherent in the methods used to predict the stability of buildings." | |
| B 2.3.1 | "Building elements must, with only normal maintenance, continue to satisfy the performance requirements of this code for the lesser of the specified intended life of the building, if stated, or:<br>(b) 15 years if:<br>(i) those building elements (including the building envelope, exposed plumbing in the subfloor space, and in-built chimneys and flues) are moderately difficult to access or replace, or<br>(ii) failure of those building elements to comply with the building code would go undetected during normal use of the building, but would be easily detected during normal maintenance.<br>(c) 5 years if:<br>(i) the building elements (including services, linings, renewable protective coatings, and fixtures) are easy to access and replace, and<br>(ii) failure of those building elements to comply with the building code would be easily detected during normal use of the building." | Gripple GS Seismic Braces robust design and quality materials ensure that suspended non-structural elements remain functional and intact over time, even in the event of seismic activity. This aligns with the durability requirements of B2, ensuring that building elements can withstand environmental stresses without significant degradation. |
| B 2.3.2 | "Individual building elements which are components of a building system and are difficult to access or replace must either:<br>(a) all have the same durability, or<br>(b) be installed in a manner that permits the replacement of building elements of lesser durability without removing building elements that have greater durability and are not specifically designed for removal and replacement." | |
| F 2.3.1 | The quantities of gas, liquid, radiation or solid particles emitted by materials used in the construction of buildings, shall not give rise to harmful concentrations at the surface of the material where the material is exposed, or in the atmosphere of any space. | F2 Hazardous Building Materials: Performance clause F2.3.1. Gripple GS Seismic Braces does not present a health hazard. There are no specific requirements in order to comply with Acceptable Solution F2/AS1, First Edition Amendment 3, 2017. |





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